Let $T = \times$. The vector $\langle$colvector$|$2
-1
0
1$\rangle$ is a solution to the homogeneous system with the matrix B as the coefficient matrix (check this!). By $\langle$acronymref $|$ theorem $|$ SLSLC$\rangle$ it provides the scalars for a linear combination of the columns of B (the vectors in T) that equals the zero vector, a relation of linear dependence on T,

$$2\langle \text{vect}|w\rangle_1 + (-1)\langle \text{vect}|w\rangle_2 + (1)\langle \text{vect}|w\rangle_4 = \langle \text{zerovector}\rangle$$

Sea T=$\times$. El vector $\begin{bmatrix} 2 \\ -1 \\ 0 \\ 1 \end{bmatrix}$es una solucion del sistema homogeneo con la matriz B como matriz de coeficientes (verefique). da los escalares para una combinacion lineal de las columnas de B (vectores en T) que resulta en el vector cero, una2 relacion de dependencia lineal en T es:

$2\vec{w}_1 + (-1)\vec{w_2} + (1)\vec{w}_4 = \vec{0}$

We can rearrange this equation by solving for $\langle \text{vect}|w\rangle_4$,

$$\langle \text{vect}|w\rangle_4 = (-2)\langle \text{vect}|w\rangle_1 + \langle \text{vect}|w\rangle_2$$

Podemos reorganizar esta ecuacion resolviendo paraw_4:

$w_4 = (-2)w_1 + w_2$

This equation tells us that the vector $\langle \text{vect}|w\rangle_4$ is superfluous in the span construction that creates W. So $W = \langle \text{spn}|\times\rangle$. The requested set is $R = \times$.

Esta ecuacion nos dice qeu el vector w_4 es sobrante en el generador de W. Por lo tanto $W = \langle \text{spn}|\times\rangle$.El conjunto pedido es $R = \times$.

Contribuido por Andres Gomez Gallego.

Traducido por Daniel Dorado Martin.